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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/272,471	03/19/1999	PETAR RISTANOVIC	98-P-7523-US	5690

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EXAMINER	
BORISSOV, IGOR N	

ART UNIT	PAPER NUMBER
3639	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/272,471	RISTANOVIC ET AL.	
	Examiner	Art Unit	
	Igor Borissov	3639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/16/2006 has been entered.

Response to Amendment

Amendment received on 2/16/2006 is acknowledged and entered. Claims 1-16 have been canceled. Claim 17 has been amended. New claims 21-36 have been added. Claims 17-36 are currently pending in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 refers to Claim 23, which is wrong. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17, 19, 20, 30, 31, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 6,047,274).

Independent Claims

As per claim 17, Johnson et al. (Johnson) teaches a system for energy supply bidding, comprising:

Moderator computer (1) (Figs. 1) (*a market interface*) for exchanging market information between energy providers (bidders) and end users (Fig. 15, items 36 and 37; C. 19, L. 54-63; C. 20, L. 34-37);

A provider's energy delivery scheduling system for scheduling generation and delivery of energy from a selected (winner) energy provider to the end users in accordance with the submitted offers (market information) and in accordance with information relating to the energy generation and delivery system, wherein the selected (winner) energy provider is responsible to schedule the delivery of energy (C. 15, L. 53-55, 32-40);

Furthermore, Johnson teaches that the rules of the bidding process specify a condition (*contingency*) that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37).

Johnson does not specifically teach that said provider's energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system.

However, Johnson does teach that said *scheduling* of the power to be delivered by the selected (winner) energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), said *rules being established by the Moderator computer* (C. 11, L. 13-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include that said provider's energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, because it would advantageously allow to integrate said

functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

As per claim 30, Johnson teaches said system for energy supply bidding, comprising:

Moderator computer (1) (Figs. 1) (*a market interface*) for exchanging market information between energy providers (bidders) and end users (Fig. 15, items 36 and 37; C. 19, L. 54-63; C. 20, L. 34-37);

a provider's energy delivery (*energy transmission rights*) scheduling system for scheduling generation and delivery of energy from a selected (winner) energy provider to the end users in accordance with the submitted offers (market information) and in accordance with information relating to the energy generation and delivery system, wherein said arrangement includes a financial mechanism, and wherein the selected (winner) energy provider is responsible to schedule the delivery of energy (C. 15, L. 53-55, 32-40).

Johnson does not specifically teach that said provider's energy delivery (*energy transmission rights*) scheduling system is an energy scheduling *subsystem* of said energy supply bidding system.

However, Johnson does teach that said *scheduling* of the power to be delivered by the selected (winner) energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), said *rules being established by the Moderator computer* (C. 11, L. 13-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include that said provider's energy delivery (*energy transmission rights*) scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, because it would advantageously allow to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby

allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

Dependent Claims

As per claim 19, Johnson teaches said system, including: an energy delivery *commitment function* for specifying winning bidders for generating and delivery of blocks of power, and for stimulating or discouraging additional volume and delivery commitments (C. 13, L. 42-47; C. 14, L. 55-61);

As per claim 20, Johnson teaches said system, configured to determine price of energy, said price including location pricing (C.12, L. 55 – C. 13, L. 13).

As per claim 31, Johnson teaches said system, wherein:

a provider adjusts his bid based on the market information (*a case setup function*) (C. 13, L. 42-47);

the Moderator computer evaluates (*a feasibility test function*) submitted bids from energy providers to determine the best deal for the end user in accordance with information relating to the energy generation and delivery system (C. 14, L. 39-51);

the winning bidder is selected, and, subsequently, a selection notification is transmitted to the selected energy provider providing the auction results to the market participants (*the post-processing function*) (C. 12, L. 20-24).

As per claim 33, said system, wherein market information is transmitted between the Moderator computer (*a market user interface*) and market participants over a data communication network (C. 7, L. 54 – C. 8, L. 7; C. 13, L. 50).

As per claim 35, said system, wherein charges for the energy transmission rights are determined based on transmission fees and retail wheeling fee (fixed transmission rights) (C.12, L. 55 – C. 13, L. 13).

Claims 18, 21-29, 32, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Takriti (US 6,021,402).

Independent Claims

As per Claim 21, Johnson teaches said system, comprising:

Moderator computer (1) (Figs. 1) (*a market user interface*) for exchanging market information between energy providers (bidders) and end users (Fig. 15, items 36 and 37; C. 19, L. 54-63; C. 20, L. 34-37);

a first database, the first database including market information entered by market participants regarding a plurality of generator bids and a plurality of load bids (C. 19, L. 54-63; C. 20, L. 34-37);

a provider's energy delivery scheduling system for scheduling generation and delivery of energy from a selected (winner) energy provider to the end users in accordance with the submitted offers (market information) and in accordance with information relating to the energy generation and delivery system, wherein the selected (winner) energy provider is responsible to schedule the delivery of energy (C. 15, L. 53-55, 32-40).

Johnson does not specifically teach that said provider's energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system.

However, Johnson does teach that said *scheduling* of the power to be delivered by the selected (winner) energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), said *rules being established by the Moderator computer* (C. 11, L. 13-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include that said provider's energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, because it would advantageously allow to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

Also, Johnson does not specifically teach that said first database further including a model of a transmission network.

Takriti teaches a risk management system for scheduling the generating units of electric utility while taking into consideration power trading with other utilities and the stochastic load on the system (C. 4, L. 59-61), said system including a modeling means for said energy generation and delivery (C. 5, L. 7-8).

It would have been obvious to one having ordinary skill in art the time the invention was made to modify Johnson to include that said first database further including a model of a transmission network, as disclosed in Takriti, because it would advantageously allow to determine an operating schedule for generating units to meet the load at a minimal cost and transmission constraints, as specifically stated in Takriti (C. 3, L. 17-18).

Dependent Claims

As per claim 18, Takriti teaches said system, including a modeling means for modeling said energy generation and delivery (C. 5, L. 7-8). The motivation to combine Johnson with Takriti would be to advantageously optimize operating schedule for generating units to meet the load at a minimum cost and transmission constraints.

As per claim 22, Takriti teaches said system, including a modeling means for said energy generation and delivery (C. 5, L. 7-8), said modeling means including:

a unit commitment function for selecting energy generators (C. 19, L. 51; C. 20, L. 19-20). The motivation to combine Johnson with Takriti would be to advantageously optimize operating schedule for generating units to meet the load at a minimum cost and transmission constraints.

As per claim 23, Johnson teaches said system, including: an energy delivery *commitment function* for specifying winning bidders for generating and delivery of blocks of power, and for stimulating or discouraging additional volume and delivery commitments (C. 13, L. 42-47; C. 14, L. 55-61); and bidding process rules (*security analysis function*) for specifying a (*contingency*) condition that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37).

As per claim 24, Johnson teaches said system, including:

an energy delivery *commitment function* for specifying winning bidders for generating and delivery of blocks of power, and for stimulating or discouraging additional volume and delivery commitments (C. 13, L. 42-47; C. 14, L. 55-61);

bidding process rules (*security analysis function*) for specifying a (*contingency*) condition that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37);

a power generation *optimizing function* for optimizing generation of production capacity and/or energy provisioning activities based on feedbacks from the Moderator computer (C. 16, L. 53-56).

Johnson does not specifically teach that said energy delivery commitment function includes *a unit commitment function for selecting energy generators;* and that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system.*

Takriti teaches a risk management system for scheduling the generating units of electric utility while taking into consideration power trading with other utilities and the stochastic load on the system (C. 4, L. 59-61), said system including a modeling means for said energy generation and delivery (C. 5, L. 7-8), said modeling means including: a unit commitment function for selecting energy generators (C. 19, L. 51; C. 20, L. 19-20);

a system reliability (security) function for modeling energy generation and delivery under certain circumstances (C. 7, L. 20-33) or *contingency conditions* (solving the unit commitment function) (C. 19, L. 50-51);

a function for optimally allocating the electric load between different generating units (*configuration*) at each time period and under each scenario (*optimal power flow function*) so as to operate in reliable (secure) fashion, assuming solving the unit commitment function (*contingency condition*) (C. 19, L. 47-51), and considering physical properties of the generating units (C. 7, L. 20-33) and status of the generating units (C. 5, L. 9-10).

It would have been obvious to one having ordinary skill in art the time the invention was made to modify Johnson to include that said energy delivery commitment function includes *a unit commitment function for selecting energy generators;* and that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system*, as disclosed in Takriti, because it would advantageously allow to determine an operating schedule for generating units to meet the load at a minimal cost, as specifically stated in Takriti (C. 3, L. 17-18).

As per claim 25, Johnson teaches said system, wherein the scheduling and delivery of energy generation is conducted at least one of a day in advance and an hour in advance (C. 4, L. 32-33, 59-61).

As per claim 26, Johnson teaches said system, wherein said market information includes demand for energy delivery (C. 14, L. 51-63) and availability of energy generation (C. 14, L. 64 – C. 15, L. 5).

As per claim 27, Tektite teaches said system, wherein the unit commitment function selects energy generating units for operation in each hour of each day of each time period during each scenario (C. 20, L. 19-22; C. 14, L. 27, 51-54). The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units to meet the load at a minimum cost.

As per claim 28, Johnson teaches said system, configured to determine price of energy, said price including location pricing (C.12, L. 55 – C. 13, L. 13).

As per claim 29, Takriti teaches said risk management system for electric utilities, wherein ramping rates are considered in optimization of scheduling of the generating units (C. 19, L. 45-54). The motivation to combine Johnson with Takriti would be to optimize operating schedule for generating units to meet the load at a minimum cost.

As per claim 32, Johnson teaches said system, wherein:

the bidding process rules specify a (*contingency*) condition that only those bids for power supply would be considered, which include supply blocks of power of

sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37);

optimization of generating or production capacity and/or energy provisioning activities is conducted (*an optimal power flow function*) based on feedbacks from the Moderator computer (C. 16, L. 53-56), and

charges for the energy transmission rights are determined (*the energy rights pricing function*) based on transmission fees and retail wheeling fee (C.12, L. 55 – C. 13, L. 13).

Johnson does not specifically teach that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system.*

Takriti teaches a risk management system for scheduling the generating units of electric utility while taking into consideration power trading with other utilities and the stochastic load on the system (C. 4, L. 59-61), said system including a modeling means for said energy generation and delivery (C. 5, L. 7-8), said modeling means including: a system reliability (security) function for modeling energy generation and delivery under certain circumstances (C. 7, L. 20-33) or *contingency conditions* (solving the unit commitment function) (C. 19, L. 50-51); and

a function for optimally allocating the electric load between different generating units (*configuration*) at each time period and under each scenario (*optimal power flow function*) so as to operate in reliable (secure) fashion, assuming solving the unit commitment function (*contingency condition*) (C. 19, L. 47-51), and considering physical properties of the generating units (C. 7, L. 20-33) and status of the generating units (C. 5, L. 9-10).

It would have been obvious to one having ordinary skill in art the time the invention was made to modify Johnson to include that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system*, as disclosed in Takriti, because it would advantageously allow to determine an operating schedule for generating units to meet the load at a minimum cost, as specifically stated in Takriti (C. 3, L. 17-18).

As per claim 34, Takriti teaches said system, including a modeling means for modeling said energy generation and delivery (C. 5, L. 7-8). The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units to meet the load at a minimum cost.

As per claim 36, Takriti teaches said system, wherein said optimization of energy generation and delivery is conducted under certain circumstances (C. 7, L. 20-33) or contingency conditions (solving the unit commitment function) (C. 19, L. 50-51) to provide reliability (security constrained) of system operation. The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units to meet the load at a minimum cost.

Response to Arguments

Applicant's arguments filed on 7/25/2005 have been fully considered but they are not persuasive.

In response to applicant's argument that Johnson fails to disclose a subsystem for scheduling energy delivery, the examiner maintains that Johnson teaches a provider's energy delivery scheduling system for scheduling generation and delivery of energy from a selected energy provider to the end users (C. 15, L. 53-55, 32-40). While Johnson does not specifically teach that said provider's energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, Johnson does teach that said *scheduling* of the power to be delivered by the selected energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), said *rules being established by the Moderator computer* (C. 11, L. 13-14). The motivation to modify Johnson to include that said provider's energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system would be to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

In response to applicant's argument that there is no suggestion to modify Johnson, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, integration of computer-implemented functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform rather then maintain a plurality of computer systems would allow to save on maintenance cost and simplify upgrading and maintenance of said system.

In response to applicant's argument that there is no suggestion to combine Johnson and Takriti, it is noted that both Johnson and Takriti relate to a system for scheduling the generating units of electric utility while taking into consideration power trading with other utilities. The motivation to combine Johnson to incorporate *a unit commitment function for selecting energy generators* as disclosed in Takriti would be to provide ability to determine an operating schedule for generating units to meet the load at a minimal cost, as specifically stated in Takriti (C. 3, L. 17-18).

In response to applicant's argument that Takriti fails to disclose a deregulated market as Johonson does, the examiner points out that Takriti explicitly teaches said feature. Specifically, Takriti teaches "a computer implemented process for scheduling the generating units of a utility while taking into consideration power trading with other utilities and the stochastic load on the system. The system allows the user to provide multiple load forecasts and to vary the fuel price between the different scenarios and the different periods of the planning horizon. The tool allows the user to model accurately the uncertain trading transactions and the changing fuel prices. Given (1) a planning horizon, (2) a set of electric-load forecasts and fuel prices, (3) a full description of the

properties of the electric-power generators, (4) reserve requirements for the system, (5) an estimate of the price of electricity in the open market at each hour of the week, and (6) a set of possible trading transactions for the next two to seven days, the goal is to meet the electric demand of customers at a minimal cost while making the maximum profit possible from power trading." (C. 4, L. 58 – C. 5. L. 7).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IB
5/01/2005

IGOR N. BORISSOV
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